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10/509,428

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EXAMINER

RALEIGH, DONALD L

ART UNIT

PAPER NUMBER

2879

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                        |  |
|------------------------------|--------------------------------------|----------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/509,428 | <b>Applicant(s)</b><br>SUGIMOTO ET AL. |  |
|                              | <b>Examiner</b><br>DONALD L. RALEIGH | <b>Art Unit</b><br>2879                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

DETAILED ACTION

***Response to Amendment***

Receipt of the Amendment, filed on December 14, 2007, is acknowledged.

Claims 1-11 are pending in the instant application.

***Claim Objections***

Claims 9-11 are objected to because of the following informalities:

Claims 9-11 are dependent on method claim 8, however, their preamble is directed to a product. Appropriate correction is required. For examination purposes Examiner will consider claims 9-11 as method claims.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "the inclusion-inorganic-barrier laminate includes first and second inorganic barrier films so as to compress the high-molecular compound film embedded between the first and second inorganic barrier films", the recitation contradict previously stated limitation "a high-molecular compound layer being in contact with said organic electroluminescent elements", accordingly, claim 1 is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Graff et al (US Patent No. 6,570,325).

Regarding claim 1: Graff discloses an organic electroluminescent display panel (Fig.1 and Col. 1, lines 23-24)) comprising one or more organic electroluminescent elements (Col. 1, lines 23-24) each having first (and second display electrodes (Col.1, lines 24-25)) and one or more organic functional layers (Fig. 3, (335)) of organic compounds (Col.1, line 24 (organic)) sandwiched and layered between said first and second display electrodes (Col. 1, lines 23-25) the organic functional layers (Fig. 3, (335)) including a light-emitting layer; (Col.1, lines 25-27). a resin substrate (Fig.3, (305), (Col. 2, lines 49-51) and an inclusion-inorganic-barrier laminate (Fig.3, 380,385,395,390) provided at least between said organic electroluminescent elements (335) and said resin substrate (305) and having a high-molecular compound layer (390)(Col. 2, lines 55-67) in a form of being in contact with said organic electroluminescent elements (335, see Fig.3) wherein the inclusion-inorganic-barrier laminate (380,385,395,390) includes first (380) and second (395) inorganic barrier films so as to compress the high-molecular compound film (385) embedded between the first and second inorganic films.

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Regarding Claim 2, Graff discloses that the inclusion-inorganic-barrier laminate is made of silicon oxynitride (Col. 2, lines 32).

Regarding Claim 3, Graff discloses that the inclusion-inorganic-barrier laminate is formed by a sputter deposition process. (Col. 7, lines 30-31)

Regarding Claim 4, Graff discloses a high-molecular compound film, furthermore, the claims are directed to the method of manufacturing the high-molecular compound film, in view of an absent of a showing that the method imparts distinctive structural characteristics to the final product, the limitations directed to the method of manufacturing are not germane to the issue of patentability of the device.

Regarding Claim 7, Graff discloses that the inclusion-inorganic-barrier laminate comprises one or more inorganic-barrier film pairs sandwiching said high-molecular compound film in a thickness direction thereof.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graff et al. (US Patent No. 6,570,325) in view of Sugimoto et al (US Patent No. 6,897,607)

Regarding Claim 5, Graff fails to disclose a sealing film for covering said organic electroluminescent elements from a rear side thereof.

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In the same field of endeavor, Sugimoto teaches: (Col. 2, lines 54-56) a sealing film covering EL elements from a rear side thereof for the purpose of protecting the EL elements from moisture and contamination.

Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide a sealing film as disclosed by Sugimoto in the device of Graff in order to protect the EL elements from moisture and contamination.

Regarding Claim 6, Graff fails to disclose that the sealing film is an inorganic passivation film, and said organic electroluminescent element is entirely and hermetically covered with said inclusion-inorganic-barrier laminate and said sealing film.

Sugimoto teaches (Col.2, lines 58-63), that the sealing film is an inorganic passivation film and said organic electroluminescent element is entirely and hermetically covered with said sealing film (Column 2, lines 60-62) which is resistant to deterioration in light-emitting property due to moisture .(Column 2, lines 11-14).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to entirely hermetically cover the inorganic barrier laminate with a sealing film which is resistant to deterioration in light-emitting property due to moisture.

Claims 8-10 are rejected under 35 U.S.C.103(a) as being unpatentable over Graff et al (US Patent No. 6,570,325).

Regarding Claim 8, Graff discloses a method of manufacturing an organic electroluminescent display (Col.1, lines 23-24) panel comprising one or more organic electroluminescent elements(Col.1, lines 23-24) and a resin substrate (305, Col.5, lines 48-55) supporting the organic electroluminescent elements (335), comprising the steps of forming a first inorganic barrier film (380) having an area so as to cover the resin substrate (305) , a high

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molecular compound film (385) forming a second inorganic barrier film (395) one or more organic electroluminescent elements (335), each having first and second display electrodes (Col. 1, lines 23-25)) and one or more organic functional layers of organic compounds (Col.1, lines 24,) sandwiched and layered between said first and second display electrodes (Col.1, lines 23-25, electroluminescent substance between 2 electrodes), the organic functional layers including a light-emitting layer. (Col. 1, lines 25-27)

Graff fails to disclose forming, on or over said first inorganic barrier film (380), a high-molecular compound film (385) having an area smaller than that of said first inorganic barrier film; forming, on or over said high-molecular compound film (385), a second inorganic barrier film (395) having an area larger than that of said high-molecular compound film to define an inclusion organic-barrier laminate including the first and second inorganic barrier films so as to compress the high-molecular compound film embedded between the first and second inorganic barrier films.

It would have been an obvious matter of design choice to provide at least one of the inorganic barrier layers to be larger in area than the high molecular compound layer, in order to seal the high molecular compound layer from moisture or oxygen since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955).

Regarding Claim 9, Graff discloses that the first and second inorganic barrier films are made of silicon oxynitride. (Col. 2, line 32)

Regarding Claim 10, Graff discloses that the first and second inorganic barrier films are formed by a sputter deposition process. (Col. 7, lines 30-31)

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Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Graff et al (US Patent No. 6,570,325) in view of Nishimura et al (US Patent No. 6,993,214).

Regarding Claim 11, Graff fails to disclose that the high-molecular compound film is formed by a photolithography process or a printing process.

In the same field of endeavor, Nishimura teaches using a printing method for high molecular weight material (Col. 1, lines 56-59).

It would have been obvious to one of ordinary skill in the art to incorporate the teachings of Nishimura into the invention of Graff and use a printing method for the high molecular weight layer because as a manufacturing method for a device made of a high molecular weight material, the ink jet printing method is generally known. (Col.1, lines 56-59) .

### ***Response to Arguments***

Applicant's arguments filed December 14, 2007 have been fully considered but they are not persuasive.

Applicant's argument , with respect to Claims 1 and 8, that the applied Graff reference does not disclose any sealing construction, i.e. an inclusion-inorganic-barrier laminate including first and second inorganic barrier films so as to compress the high-molecular compound film embedded between the first and second inorganic barrier films is not found persuasive. Newly-amended independent claim 1 of the instant application is rejected based upon Graff's disclosure of an inclusion-inorganic-barrier laminate (380,385,395,390), with the high molecular layer (385) (sealed) between two inorganic layers (380,395 of Fig.3) that are between the electroluminescent layer (335) and the substrate (305) and a high molecular layer (390) that is in contact with the electroluminescent layer (335).



### ***Conclusion***

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Examiner's note:*** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONALD L. RALEIGH whose telephone number is (571)270-3407. The examiner can normally be reached on Monday-Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald L Raleigh/

Examiner, Art Unit 2879

/Mariceli Santiago/

Primary Examiner, Art Unit 2879